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EXAMINER

LY, NGHI H

ART UNIT	PAPER NUMBER
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2617

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/592,156

Applicant(s)

FRIMAN ET AL.

Examiner

Nghì H. Ly

Art. Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 08/07/07 have been fully considered but they are not persuasive.

On pages 4-11 of applicant's remarks, applicant argues that the references fails to teach arranging in the system base stations and telecommunication channels which are available for a plurality of base stations but not permanently allocated to any base stations between a base station controller and a the bases stations.

In response, Langlet does indeed teach arranging in the system base stations and telecommunication channels which are available for a plurality of base stations but not permanently allocated to any base stations between a base station controller and a the bases stations (see fig.1 and fig. 6, see "BSC 16" and "BTS 20", and column 3, lines 22-26, see "allocates" or "reallocate". In this case, Langlet's "reallocate" reads on Applicant's "not permanently"). In addition, applicant's attention is directed to the teaching of Langlet below.

On pages 12 and 13 of applicant's remarks, applicant further argues that Kanai does not teach witching the base station transceiver units onto a particular channel of the plurality of optional telecommunication channels between the base station controller and the base stations, as recited in claims 4 and 9.

In response, Kanai does indeed teach switching means for switching the base station transceiver units onto a particular channel of a plurality of optional telecommunication channels between the base station controller and the base stations

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(see fig.1, BSC 102, Controller 130 and Switching devices 105), the base station controller (see fig.1, BSC 102) comprises control (see fig.1, Controller 130, since the Controller 130 receives signal from the BSC 102, those skilled in the art will appreciate that Kanai could be modified such that the station controller (see fig.1, BSC 102) comprises control means (see fig.1, Controller 130) without deviating from the scope and spirit of Kanai's invention, and column 4, lines 24-27, see "the signal in multiplexer 106-2 will, depending on the setting of switching device 105" and which transmit a predetermined message (column 5, lines 26-40, see "the controller 130 uses the information from the traffic monitor 250, and controls the switching") indicating the allocated telecommunication channel to the base station to whom the channel is allocated (column 3, lines 48-55, see "Based on information which flows from the customer data registers 211, 221, 231 and column 5, lines 26-40, see "Depending upon the traffic situation inside each cell and information on the type of service contact"), and the switching means of the first, and correspondingly, of the second base station (Abstract, and column 1, line 64 to column 2, line 8, see "first base station" and "second base station") are responsive to the message for switching the base station transceiver units to the telecommunication channel assigned by the message (column 5, lines 26-40, see "the controller 130 uses the information from the traffic monitor 250, and controls the switching". Since Kanai teaches "first base station" and "second base station" (see Abstract, and column 1, line 64 to column 2, line 8), the teaching of Kanai inherently teaches that if the transceiver 104 (of first base station and/or second base station) is selected (or not selected), the base station of that transceiver 104 would also

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be selected (or not selected) respectively, and it reads on Applicant's claimed limitation) and the combination of Langlet, Kanai and Lu does indeed teaches applicant's claimed invention. In addition, applicant's attention is directed to the teaching of Langlet, Kanai and Lu below.

On pages 12 and 13 of applicant's remarks, applicant further argues that the combination of Langlet, Kanai and Lu fails to teach control means which are arranged to allocate in call set-up at least one of said telecommunication channels between the base station controller and the base stations to a base station for a call and which are arranged to transmit a predetermined message indicating the allocated telecommunication channel to the base station to whom the channel is allocated.

In response, Langlet does indeed teach control means which are arranged to allocate in call set-up at least one of said telecommunication channels between the base station controller and the base stations to a base station for a call and which are arranged to transmit a predetermined message indicating the allocated telecommunication channel to the base station to whom the channel is allocated (see Abstract and column 3, lines 22-26, see "allocates" or "reallocate", see column 5, line 62 to column 6, line 11, and see fig.1 and fig. 6, see "BSC 16" and "BTS 20", and column 3, lines 22-26, see "allocates" or "reallocate". Also see column 5, line 62 to column 6, line 11). In addition, applicant's attention is directed to the teaching of Langlet below.

On page 14 of applicant's remarks, applicant further argues that there is no motivation to combine the references.

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In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to do so found in the references themselves so that traffic can be assigned to the transceiver, based on the provider with the highest volume or according to a prearranged priority scale (see Kanai, Abstract) and in order to provide a method for facilitating cellular communication for and among a plurality of native cellular handsets in a hybrid cellular communication system (see Lu, Abstract).

On page 16 of applicant's remarks, applicant further argues that the combination of Langlet, Kanai, Lu, Tiedemann and Choi does not teach claim 5.

In response, the combination of Langlet, Kanai, Lu, Tiedemann and Choi does indeed teach claim 5. In addition, applicant's attention is directed to the teaching of Langlet, Kanai, Lu, Tiedemann and Choi in claim 5 below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to

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a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-3, 6, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langlet et al (US 5,930,248) in view of Lu et al (US 5,887,256).

Regarding claims 1, 12 and 13, Langlet teaches a method of allocating a channel in a mobile system (see Abstract and column 3, lines 22-26, see "allocates" or "reallocate"), comprising: arranging in the system base stations and telecommunication channels which are available for a plurality of base stations but not permanently allocated to any base stations between a base station controller and a the bases stations (see fig.1 and fig. 6, see "BSC 16" and "BTS 20", and column 3, lines 22-26, see "allocates" or "reallocate". In this case, Langlet's "reallocate" reads on Applicant's "not permanently"), allocating in call set-up at least one of said telecommunication channels to the base station handling the call (see column 5, line 62 to column 6, line 11), and controlling the base station controller to transmit information to the base station on the telecommunication channel allocated thereto (see fig.1 and fig. 6, see "BSC 16"

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and "BTS 20", and column 3, lines 22-26, see "allocates" or "reallocate". Also see column 5, line 62 to column 6, line 11).

Langlet does not specifically disclose allocating least one of said telecommunication channels between the base station controller and the base station.

Lu teaches allocating least one of said telecommunication channels between the base station controller and the base station (see fig.2 link 174, column 5, lines 40-43 and column 8, lines 27-31, where Lu teaches communication between base station controller and the base station).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention was made to provide the above teaching of Lu into the system of Langlet in order to provide a method for facilitating cellular communication for and among a plurality of native cellular handsets in a hybrid cellular communication system (see Lu, Abstract).

Regarding claim 2, Langlet further teaches the telecommunication channels are classified on the basis of their characteristics into at least two categories, i.e. primary telecommunication channels and secondary telecommunication channels, and in call set-up, a primary telecommunication channel, if available, is allocated to the base station, otherwise a free secondary telecommunication channel is allocated thereto (see column 5, line 62 to column 6, line 11).

Regarding claims 3 and 6, Langlet further teaches the free telecommunication channels are classified into categories on the basis of their data transmission capacity (see column 5, line 62 to column 6, line 11) or quality such that the primary

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telecommunication channels have larger data transmission capacity or they are of better quality than the secondary telecommunication channels (see column 5, line 62 to column 6, line 11).

5. Claims 4 and 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langlet et al (US 5,930,248) in view of Kanai (US 6,195,566) and further in view of Lu et al (US 5,887,256).

Regarding claims 4, 9 and 11, Langlet teaches a mobile system (see fig.1 and fig.6), which comprises a base station controller (see fig.4 and fig.6, see "BSC 16"), at least a first and a second base station (see fig.1, plurality of "BTS 20"), which comprise transceiver units (see fig.1 and fig.6, see connection between "BSC 16" and "BTS 20") for establishing a telecommunication connection by radio signals to the subscriber terminals located in the base station coverage area (see fig 1, wireless connection between BTS 20 and handsets 12) and the base station controller comprises control means (see fig.1 and fig.6, the base station controller BSC 16 does indeed comprises controller) which in call set-up (see fig 1, wireless connection between BTS 20 and handsets 12) allocate at least one of the telecommunication channels to the first or the second base station for the duration of the call (see fig.1 and fig. 6, see "BSC 16" and "BTS 20", and column 3, lines 22-26, see "allocates" or "reallocate". Also see column 5, line 62 to column 6, line 11) wherein the base station controller comprises control means which in call set-up allocate at least one of the telecommunication channels to the first or the second base station for the duration of the call (see fig.1 and fig. 6, see

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"BSC 16" and "BTS 20", and column 3, lines 22-26, see "allocates" or "reallocate". Also see column 5, line 62 to column 6, line 11), wherein a plurality of optional telecommunication channels available between said base station controller and said base stations, but not permanently allocated to any base stations (see fig.1 and fig. 6, see "BSC 16" and "BTS 20", and column 3, lines 22-26, see "allocates" or "reallocate". In this case, Langlet's "reallocate" reads on Applicant's "not permanently") and switching means for switching the base station transceiver units (see column 4, lines 40-50, see "MSC 14").

Langlet does not specifically disclose switching means for switching the base station transceiver units onto a particular channel of a plurality of optional telecommunication channels between the base station controller and the base stations, and which transmit a predetermined message indicating the allocated telecommunication channel to the base station to whom the channel is allocated and the switching means of the first, and correspondingly, of the second base station are responsive to the message for switching the base station transceiver units to the telecommunication channel assigned by the message.

Kanai teaches switching means for switching the base station transceiver units onto a particular channel of a plurality of optional telecommunication channels between the base station controller and the base stations (see fig.1, BSC 102, Controller 130 and Switching devices 105), the base station controller (see fig.1, BSC 102) comprises control (see fig.1, Controller 130, since the Controller 130 receives signal from the BSC 102, those skilled in the art will appreciate that Kanai could be modified such that the

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station controller (see fig.1, BSC 102) comprises control means (see fig.1, Controller 130) without deviating from the scope and spirit of Kanai's invention, and column 4, lines 24-27, see "the signal in multiplexer 106-2 will, depending on the setting of switching device 105" and which transmit a predetermined message (column 5, lines 26-40, see "the controller 130 uses the information from the traffic monitor 250, and controls the switching") indicating the allocated telecommunication channel to the base station to whom the channel is allocated (column 3, lines 48-55, see "Based on information which flows from the customer data registers 211, 221, 231 and column 5, lines 26-40, see "Depending upon the traffic situation inside each cell and information on the type of service contact"), and the switching means of the first, and correspondingly, of the second base station (Abstract, and column 1, line 64 to column 2, line 8, see "first base station" and "second base station") are responsive to the message for switching the base station transceiver units to the telecommunication channel assigned by the message (column 5, lines 26-40, see "the controller 130 uses the information from the traffic monitor 250, and controls the switching". Since Kania teaches "first base station" and "second base station" (see Abstract, and column 1, line 64 to column 2, line 8), the teaching of Kanai inherently teaches that if the transceiver 104 (of first base station and/or second base station) is selected (or not selected), the base station of that transceiver 104 would also be selected (or not selected) respectively, and it reads on Applicant's claimed limitation).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention was made to provide the above teaching of Kanai into the system

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of Langlet so that traffic can be assigned to the transceiver, based on the provider with the highest volume or according to a prearranged priority scale (see Kanai, Abstract).

Langlet and Kanai do not specifically disclose allocating least one of said telecommunication channels between the base station controller and the base station.

Lu teaches allocating least one of said telecommunication channels between the base station controller and the base station (see fig.2 link 174, column 5, lines 40-43 and column 8, lines 27-31, where Lu teaches communication between base station controller and the base station).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention was made to provide the above teaching of Lu into the system of Langlet and Kanai in order to provide a method for facilitating cellular communication for and among a plurality of native cellular handsets in a hybrid cellular communication system (see Lu, Abstract).

Regarding claim 7, Langlet further teaches the message indicating the allocated telecommunication channel also indicates a radio channel to be used in the call to the transceiver unit of the base station (see column 3, lines 22-31).

Regarding claim 8, the combination of Langlet, Kanai and Lu teaches the GSM specifications part 08.58 (see Lu, column 7, lines 18- 30, see "BSM 08.58").

Regarding claim 10, Langlet further teaches the particular transceiver unit comprises means for message for the duration of the call to be applying a radio channel assigned by the established (see column 8, lines 31-38).

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6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Langlet et al (US 5,930,248) in view of Kanai (US 6,195,566) and further in view of Lu et al (US 5,887,256), Tiedemann et al (US 5,987,326) and Choi et al (US 6,724,740).

Regarding claim 5, the combination of Langlet, Kanai and Lu teaches a method as claimed in claim 4. The combination of Langlet, Kanai and Lu does not specifically disclose the telecommunication channels are classified on the basis of their characteristics into at least two categories, i.e. primary telecommunication channels and secondary telecommunication channels, and a primary telecommunication channel, if available, is allocated to the base station, otherwise a free secondary telecommunication channel is allocated thereto.

Tiedemann teaches the telecommunication channels are classified on the basis of their characteristics into at least two categories, i.e. primary telecommunication channels and secondary telecommunication channels, and a primary telecommunication channel, if available, is allocated to the base station, otherwise a free secondary telecommunication channel is allocated thereto (see column 8, lines 46-54 and see column 8, line 54 to column 9, line 4).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention was made to provide the above teaching of Tiedemann into the system of Langlet, Kanai and Lu in order to reduce congestion.

The combination of Langlet, Kanai, Lu and Tiedemann does not specifically disclose the telecommunication channels are classified on the basis of their

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characteristics into at least two categories, i.e. primary telecommunication channels and secondary telecommunication channels, and in call set-up.

Choi teaches the telecommunication channels are classified on the basis of their characteristics into at least two categories, i.e. primary telecommunication channels and secondary telecommunication channels, and in call set-up (see Abstract, column 29, lines 4-24, see "call setup", "fundamental channel" and "supplemental channel").

Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention was made to provide the above teaching of Choi into the system of Langlet, Kanai, Lu and Tiedemann in order to provide a voice and data transmission/reception device in a communication system and a control information message by using channel that are not occupied.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (571) 272-7911. The examiner can normally be reached on 9:30am-8:00pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nghi H. Ly

A handwritten signature in black ink, appearing to be 'Nghi H. Ly', written in a cursive style.